# **Product** Data Sheet

# Vitamin D4

Cat. No.: HY-75958

CAS No.: 511-28-4

Molecular Formula:  $C_{28}H_{46}O$ Molecular Weight: 398.66

Target: VD/VDR

Pathway: Vitamin D Related/Nuclear Receptor

Storage: -20°C, protect from light, stored under nitrogen

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light, stored under

nitrogen)

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 25 mg/mL (62.71 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.5084 mL	12.5420 mL	25.0840 mL
	5 mM	0.5017 mL	2.5084 mL	5.0168 mL
	10 mM	0.2508 mL	1.2542 mL	2.5084 mL

Please refer to the solubility information to select the appropriate solvent.

### **BIOLOGICAL ACTIVITY**

Description	Vitamin D4 (22-Dihydroergocalciferol) is a Vitamin D derived from fungi. The precursor of Vitamin D4 is 22,23-dihydroergosterol <sup>[1]</sup> .
In Vitro	Vitamin D deficiency and risk for cardiovascular disease <sup>[2]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Vitamin D metabolites regulates parathyroid hormone gene transcription in vivo in the rat <sup>[3]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### **CUSTOMER VALIDATION**

• Democritus University of Thrace. FACULTY OF HEALTH SCIENCES MEDICAL SCHOOL. 2021 Jul.

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#### **REFERENCES**

- [1]. Zittermann A, et al. Vitamin D and Cardiovascular Disease: An Update. Anticancer Res. 2019 Sep;39(9):4627-4635.
- [2]. Silver J, et al. Regulation by vitamin D metabolites of parathyroid hormone gene transcription in vivo in the rat. J Clin Invest. 1986 Nov;78(5):1296-301.
- [3]. Katherine M Phillips, et al. Vitamin D4 in mushrooms. PLoS One. 2012;7(8):e40702.

Caution: Product has not been fully validated for medical applications. For research use only.

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